

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-9 (canceled).

10. (new): An automatic programming method having an NC creation program-editing function for editing an NC creation program including a plurality of machining units and a machining program for each machining unit by using a program editing screen,

the program editing screen including

a machining shape tree on which a plurality of machining unit names indicating a machining shape of the machining unit, as a unit of machining in which continuous machining is performed with the same main spindle and with the same tool, is displayed hierarchically according to a machining order;

a program tree on which a plurality of machining program names relating to the respective machining units is displayed hierarchically according to the machining order;

an editor section in which machining unit data corresponding to the machining unit name specified on the machining shape tree including machining shape information indicating the machining shape and machining content data indicating machining contents, and the machining program corresponding to the machining program name specified on the program tree are displayed to perform editing; and

a model display section in which a product model, a work model, and a machining shape model corresponding to the specified machining unit are displayed three-dimensionally,

comprising:

inserting machining shape information corresponding to a specified shape element required for forming the machining unit data with respect to the machining shape model displayed in the model display section in a cursor position specified in the editor section.

11. (new): The automatic programming method according to claim 10, wherein the inserting includes inserting machining unit data corresponding to the machining unit relating to the machining shape model specified in the model display section at the cursor position.

12. (new): The automatic programming method according to claim 10, further comprising displaying the machining shape model of a machining unit corresponding to the cursor position in the editor section in highlighted manner on any one of the product model and the work model or both displayed in the model display section.

13. (new): An automatic programming method having an NC creation program editing function for editing an NC creation program including a plurality of machining units and a machining program for each machining unit, by using a program editing screen having a machining shape tree on which a plurality of machining unit names is displayed hierarchically according to a machining order, a program tree on which a plurality of machining program names relating to the respective machining units is displayed hierarchically according to the machining order, a model display section in which any one of a product model and a work model or both is displayed, and an editor section in which machining unit data corresponding to the

machining unit name specified on the machining shape tree or the machining program corresponding to the machining program name specified on the program tree is displayed to perform editing, comprising:

inserting a machining program name corresponding to specified machining unit name in an insertion position specified in the program tree, and inserting a machining program corresponding to the specified machining unit name in an insertion position specified in the editor section.

14. (new): A computer-readable recording medium that stores therein a computer program that causes a computer to execute an automatic programming method having an NC creation program-editing function for editing an NC creation program including a plurality of machining units and a machining program for each machining unit, by using a program editing screen having a machining shape tree on which a plurality of machining unit names is displayed hierarchically according to a machining order, a program tree on which a plurality of machining program names relating to the respective machining units is displayed hierarchically according to the machining order, a model display section in which any one of a product model and a work model or both is displayed, and an editor section in which machining unit data corresponding to the machining unit name specified on the machining shape tree or the machining program corresponding to the machining program name specified on the program tree is displayed to perform editing, the computer program causing the computer to execute:

displaying a machining unit corresponding to a cursor position in the editor section and in any one of the product model and the work model or both displayed in the model display section

in highlighted manner.

15. (new): A computer-readable recording medium that stores therein a computer program that causes a computer to execute an automatic programming method having an NC creation program editing function for editing an NC creation program including a plurality of machining units and a machining program for each machining unit, by using a program editing screen having a machining shape tree on which a plurality of machining unit names is displayed hierarchically according to a machining order, a program tree on which a plurality of machining program names relating to the respective machining units is displayed hierarchically according to the machining order, a model display section in which any one of a product model and a work model or both is displayed, and an editor section in which machining unit data corresponding to the machining unit name specified on the machining shape tree or the machining program corresponding to the machining program name specified on the program tree is displayed to perform editing, the computer program causing the computer to execute:

inserting machining unit data corresponding to the machining unit selected in the model display section in a position specified in the editor section.

16. (new): An automatic programming device comprising:

a display controller that displays a program editing screen having a machining shape tree on which a plurality of machining unit names indicating a machining shape of the machining unit, as a unit of machining in which continuous machining is performed with the same main spindle and with the same tool, is displayed hierarchically according to a machining order, a

program tree on which a plurality of machining program names relating to the respective machining units is displayed hierarchically according to the machining order, an editor section in which machining unit data corresponding to the machining unit name specified on the machining shape tree including machining shape information indicating the machining shape and machining content data indicating machining contents, and the machining program corresponding to the machining program name specified on the program tree are displayed to perform editing, and a model display section in which a product model, a work model, and a machining shape model corresponding to the specified machining unit are displayed three-dimensionally; and

an NC creation program editor that edits an NC creation program including a plurality of machining units and a machining program for each machining unit, based on an input to the program editing screen,

wherein the display controller inserts machining shape information corresponding to a specified shape element required for forming the machining unit data with respect to the machining shape model displayed in the model display section in a cursor position specified in the editor section.

17. (new): The automatic programming device according to claim 16, wherein the display controller inserts machining unit data corresponding to a machining unit relating to the machining shape model specified in the model display section in the cursor position.

18. (new): The automatic programming device according to claim 16, wherein the display controller displays the machining shape model of a machining unit corresponding to the cursor

position in the editor section in highlighted manner on any one of the product model and the work model or both displayed in the model display section.

19. (new): An automatic programming device comprising:

a display controller that displays a program editing screen having a machining shape tree on which a plurality of machining unit names is displayed hierarchically according to a machining order, a program tree on which a plurality of machining program names relating to the respective machining units is displayed hierarchically according to the machining order, a model display section in which any one of a product model and a work model or both is displayed, and an editor section in which machining unit data corresponding to the machining unit name specified on the machining shape tree or the machining program corresponding to the machining program name specified on the program tree is displayed to perform editing;

an NC creation program editor that edits an NC creation program including a plurality of machining units and a machining program for each machining unit, based on an input to the program editing screen; and

an insertion unit that inserts a machining program name corresponding to specified machining unit name in an insertion position specified on the program tree, and inserts a machining program corresponding to the specified machining unit name in an insertion position specified in the editor section.